

## Types of Chemical Reactions

- A. **Combustion** – burning or combining with oxygen
- Ex.  $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$   
 $\text{C}_4\text{H}_{10} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- B. **Synthesis** – two or more elements or compounds combine to form a more complex compound
- Ex.  $\text{A} + \text{B} \rightarrow \text{AB}$   
 $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$   
 $\text{Na} + \text{Cl} \rightarrow \text{NaCl}$

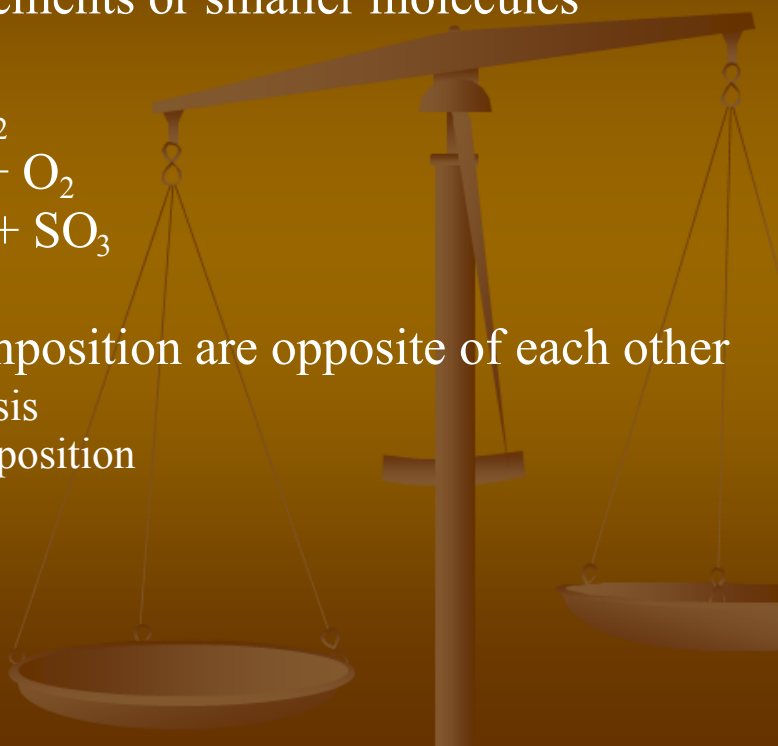


- C. Decomposition— A large molecule splits into elements or smaller molecules

ex.  $\text{AB} \rightarrow \text{A} + \text{B}$

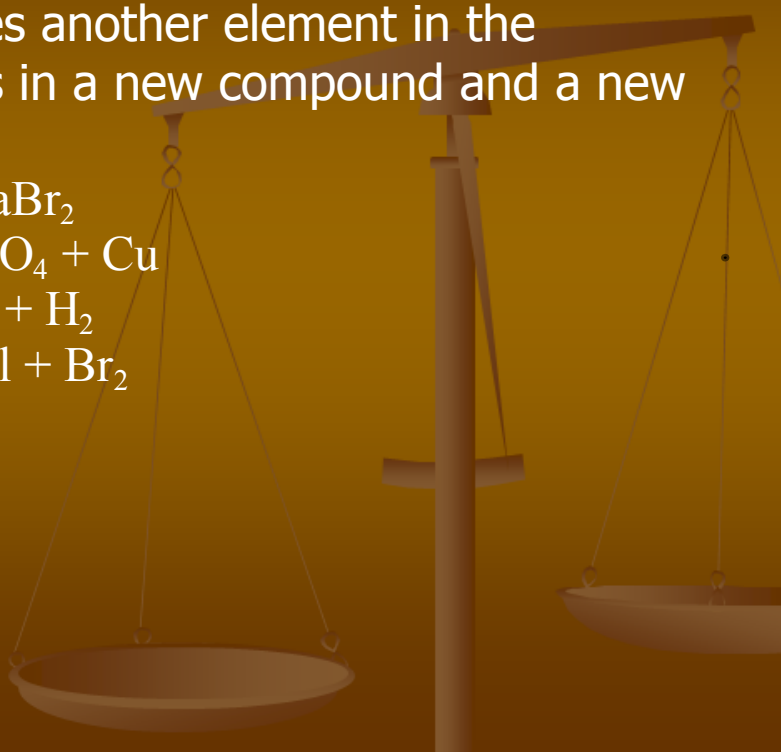


- Synthesis and Decomposition are opposite of each other



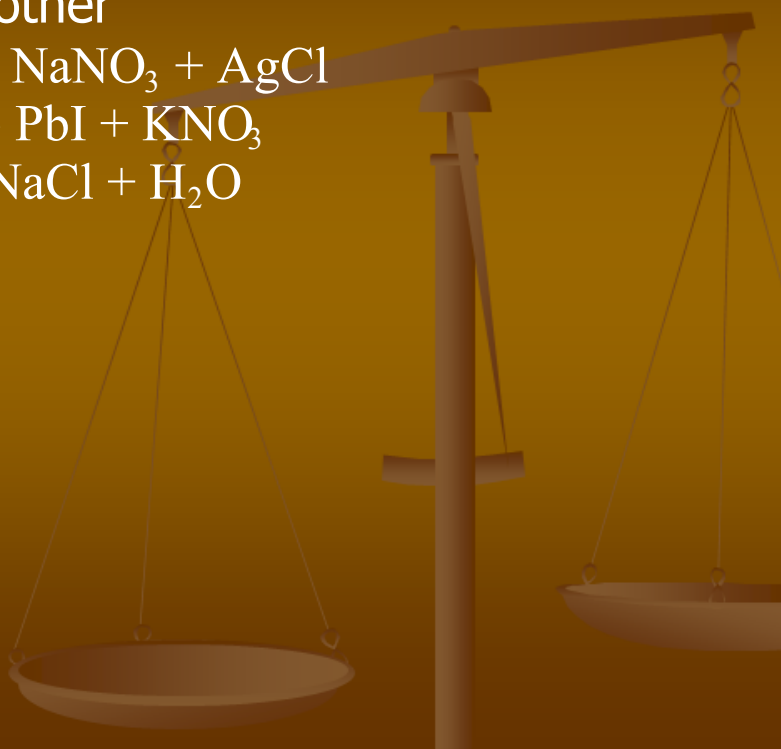
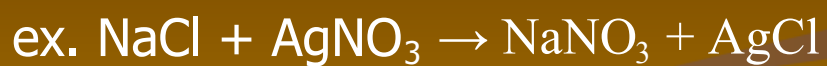
- D. **Single Displacement Reaction** – the reactants and products are always a combination of an element and a compound.

- the element replaces another element in the compound which results in a new compound and a new element



- E. **Double Displacement Reaction**

This occurs when elements in different compounds displace or exchange places with one another



## Lesson 8 Chemical Reactions .notebook

Practice: State the type of reactions

